

# **TITLE 327 WATER POLLUTION CONTROL BOARD**

## **Proposed Rule as Preliminarily Adopted**

LSA Document #06-181

### **DIGEST**

Amends 327 IAC 2-1-8.9 to delete the site-specific water quality criteria for cadmium applicable to the West Fork of the White River from the Indianapolis Belmont Wastewater Treatment Plant outfall to the Marion-Johnson county line. Effective 30 days after filing with the Publisher.

### **HISTORY**

Findings and Determination of the Commissioner pursuant to IC 13-14-9-8, Draft Rule, and Notice of Public Hearing: July 1, 2006, Indiana Register (29 IR 3434).

Date of First Hearing: September 13, 2006.

Posting of Proposed Rule: November 1, 2006, Indiana Register (20061101-IR-327060181PRA).

Notice of Public Hearing: November 1, 2006, Indiana Register (20061101-IR-327060181PHA).

### **327 IAC 2-1-8.9**

SECTION 1. 327 IAC 2-1-8.9 IS AMENDED TO READ AS FOLLOWS:

#### **327 IAC 2-1-8.9 Site-specific modifications to criteria**

**Authority:** IC 13-14-8; IC 13-14-9; IC 13-18-3

**Affected:** IC 13-15-4-1; IC 13-18-4

Sec. 8.9. (a) Site-specific modifications to criteria must be protective of designated uses and aquatic life or human health. In addition, any site-specific modifications that result in less stringent criteria must be based on a sound scientific rationale and shall not be likely to jeopardize the continued existence of endangered or threatened species listed or proposed under Section 4 of the Endangered Species Act (ESA) or result in the destruction or adverse modification of ~~such the~~ species' critical habitats. More stringent modifications shall be developed to protect endangered or threatened species listed or proposed under Section 4 of the ESA, where ~~such the~~ modifications are necessary to ensure that water quality is not likely to jeopardize the continued existence of ~~such the~~ species or result in the destruction or adverse modification of ~~such the~~ species' critical habitats. More stringent modifications may also be developed to protect candidate (C1) species being considered by the U.S. Fish and Wildlife Service (FWS) for listing under Section 4 of the ESA, where ~~such the~~ modifications are necessary to protect ~~such the~~ species. Criteria may be modified on a site-specific basis to reflect local environmental conditions as restricted by the following provisions:

(1) Aquatic life criteria may be modified on a site-specific basis as follows:

(A) ~~Aquatic life criteria may be modified on a site-specific basis~~ To provide an additional level of protection.

(B) Less stringent site-specific modifications to chronic or acute aquatic life criteria may be developed when either of the following conditions applies:

- (i) The local water quality characteristics, such as pH, hardness, temperature, or color, alter the biological availability or toxicity of a pollutant.
  - (ii) The sensitivity of the aquatic organisms species that occur at the site differs from the species actually tested in developing the criteria.
- (C) Less stringent modifications may also be developed to acute and chronic aquatic life criteria to reflect local physical and hydrological conditions.
- (D) Any modifications to protect threatened or endangered aquatic species required by this subsection may be accomplished using either of the following procedures:
  - (i) If the species mean acute value (SMAV) for a listed or proposed species or for a surrogate of ~~such the~~ species is lower than the calculated final acute value (FAV), ~~such the~~ lower SMAV may be used instead of the calculated FAV in developing site-specific modified criteria.
  - (ii) The site-specific criteria may be calculated using the recalculation procedure for site-specific modifications under section 13 of this rule.
- (2) Human health criteria may be modified on a site-specific basis as follows:
  - (A) ~~Human health criteria may be modified on a site-specific basis~~ To provide an additional level of protection in accordance with the following:
    - (i) Human health criteria shall be modified on a site-specific basis to provide additional protection appropriate for highly exposed subpopulations.
    - (ii) Any person may request the commissioner to develop a site-specific modification of a human health criterion to make it more stringent.
    - (iii) The commissioner shall develop the site-specific modification of the human health criterion to make it more stringent when local fish consumption rates are higher than the rate used to derive human health criteria under sections 8.5 and 8.6 of this rule.
  - (B) Less stringent site-specific modifications to human health criteria may be developed when local fish consumption rates are lower than the rate used to derive human health criteria under sections 8.5 and 8.6 of this rule.
  - (C) Local fish consumption rates referenced in clauses (A) and (B) shall be determined by a fish consumption survey applicable to the site.
- (b) The application requirements for site-specific modifications to criteria allowed under subsection (a) are as follows:
  - (1) Except as provided in subdivision (2), the application requirements for site-specific modifications to criteria shall be determined by the commissioner on a case-by-case basis.
  - (2) Applications for site-specific modifications to criteria allowed under subsection (a)(1)(B)(ii) and determined using the recalculation procedure under section 13 of this rule shall include the following:
    - (A) A list of all species of aquatic invertebrates, amphibians, and fishes that are known to occur at the site, along with the source of the information.
    - (B) A list of all aquatic plant, invertebrate, amphibian, and fish species that are critical species at the site, including all species that:
      - (i) occur at the site; and

- (ii) are listed as threatened or endangered under Section 4 of the ESA.
- (C) A site-specific version of Table 1 from a criteria document produced by the U.S. EPA after 1984.
- (D) A site-specific version of Table 3 from a criteria document produced by the U.S. EPA after 1984.
- (E) A list of all species that were deleted.
- (F) Each new calculated criterion (FAV, AAC, or CAC).
- (G) Each lowered criterion if one (1) or more were lowered to protect a specific species.

(c) Upon receipt of an application for a site-specific modification to a criterion, the commissioner shall do the following:

- (1) For a site-specific modification listed under subsection (d):
  - (A) provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with 327 IAC 5-2-11.2(b); and
  - (B) publish all pertinent information about the proposed site-specific modification on the department's Web site.
- (2) For a site-specific modification not listed under subsection (d):
  - (A) approve or deny the application; and
  - (B) if the application is approved, initiate a rulemaking to have the site-specific modification incorporated into the water quality standards.

(d) Site-specific modifications to criteria do not require a rulemaking if they are:

- (1) allowed under:
  - (A) subsection (a) and to a criterion not specifically listed in this rule;
  - ~~(2) allowed under~~ (B) subsection (a)(1)(B)(i) and determined using a WER; **or**
  - ~~(3) allowed under~~ (C) subsection (a)(1)(B)(ii) and determined using the recalculation procedure under section 13 of this rule; or
- ~~(4)~~ (2) required under subsection (a) and determined under subsection (a)(1)(D).

(e) Upon approval of a site-specific modification listed in subsection (d), the commissioner shall **do the following**:

- (1) Publish a notice in the Indiana Register.
- (2) Place all pertinent information about the approved site-specific modification on the department's Web site.
- (3) Submit the site-specific modification to U.S. EPA for approval if it is for a site-specific modification to a criterion specifically listed in this rule but not for a site-specific modification to a criterion specifically listed in this rule and expressed as a function of the WER. ~~and~~
- (4) Incorporate the site-specific modification into the water quality standards during the next revision of the water quality standards if it is for a site-specific modification to a criterion specifically listed in this rule.

(f) Site-specific modifications to criteria specifically listed in this rule, except for site-specific modifications to criteria:

- (1) specifically listed in this rule; and
- (2) expressed as a function of the WER;

shall not be incorporated into a final NPDES permit or used for other Clean Water Act purposes until approved by U.S. EPA.

(g) The following site-specific modifications to water quality criteria have been granted:

Table 8.9-1  
Site-Specific Surface Water Quality Criteria<sup>[1]</sup>

Waterbody	Starting Location	Ending Location	Substances	AAC (Maximum) (µg/l)	AAC Conversion Factors	CAC (4-Day Average) (µg/l)	CAC Conversion Factors
Richland Creek	The outfall of the Princeton POTW	The confluence of Richland Creek with McCarty Ditch	Copper (Dissolved)	$WER^{[2]}(e^{(0.9422 \ln(hardness))} - 1.4076)$	0.960	$WER^{[2]}(e^{(0.8545 \ln(hardness))} - 1.4097)$	0.960
			Cyanide (Free)	45.8		10.7	
			Lead (Dissolved)	$WER^{[2]}(e^{(1.273 \ln(hardness))} - 1.2554)$	$1.46203 - [(\ln hardness)(0.145712)]$	$WER^{[2]}(e^{(1.273 \ln(hardness))} - 3.7561)$	$1.46203 - [(\ln hardness)(0.145712)]$
Wabash River	The outfall of the Smurfit-Stone Corporation (river mile 387)	A point two (2) miles downstream	Cyanide (Free)	45.8		10.7	
Wabash River	The outfall of Eli-Lilly and Company (river mile 309)	A point two (2) miles downstream	Copper (Dissolved)	$WER^{[2]}(e^{(0.9422 \ln(hardness))} - 1.4076)$	0.960	$WER^{[2]}(e^{(0.8545 \ln(hardness))} - 1.4097)$	0.960
Wabash River	The outfall of Eli-Lilly and Company (river mile 236)	A point two (2) miles downstream	Lead (Dissolved)	$WER^{[2]}(e^{(1.273 \ln(hardness))} - 1.2554)$	$1.46203 - [(\ln hardness)(0.145712)]$	$WER^{[2]}(e^{(1.273 \ln(hardness))} - 3.7561)$	$1.46203 - [(\ln hardness)(0.145712)]$
West Fork White River	The outfall of the Belmont POTW (river mile 227)	The Marion-Johnson County line (river mile 220)	<del>Cadmium (Dissolved)</del>	<del><math>WER^{[2]}(e^{(1.128 \ln(hardness))} - 1.708)</math></del>	<del><math>1.136672 - [(\ln hardness)(0.041838)]</math></del>	<del><math>WER^{[2]}(e^{(0.7832 \ln(hardness))} - 2.9232)</math></del>	<del><math>1.101672 - [(\ln hardness)(0.041838)]</math></del>
			Copper (Dissolved)	$WER^{[2]}(e^{(0.9422 \ln(hardness))} - 1.4076)$	0.960	$WER^{[2]}(e^{(0.8545 \ln(hardness))} - 1.4097)$	0.960
			Cyanide (Free)	45.8		10.7	
			Lead (Dissolved)	$WER^{[2]}(e^{(1.273 \ln(hardness))} - 1.2554)$	$1.46203 - [(\ln hardness)(0.145712)]$	$WER^{[2]}(e^{(1.273 \ln(hardness))} - 3.7561)$	$1.46203 - [(\ln hardness)(0.145712)]$

<sup>[1]</sup> The AAC and CAC columns of this table contain hardness-based total recoverable metals criteria for ~~cadmium~~, copper and lead. The criterion for the dissolved metal is calculated by multiplying the appropriate conversion factor by the AAC or CAC. This dissolved AAC or CAC shall be rounded to two (2) significant digits, except when the criteria are used as intermediate values in a calculation, such as in the calculation of water quality-based effluent limitations (WQBELs).

<sup>[2]</sup> A value of one (1) shall be used for the water-effect ratio (WER) unless an alternate value is established under this section. (Water Pollution Control Board; 327 IAC 2-1-8.9; filed Feb 14, 2005, 10:05 a.m.: 28 IR 2058; errata filed Jul 6, 2005, 3:12 p.m.: 28 IR 3582)